Air Quality Permit Application for Stationary Sources

Instructions and Suggested Format

Montana Department of Environmental Quality
Permitting and Compliance Division
Air Resources Management Bureau
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This application form is to be used for all Montana air quality **preconstruction and operating permits** for stationary sources, including initial applications, renewals, revisions, alterations and modifications. It is not valid for Acid Rain permits required under Title IV of the Clean Air Act. Application for Acid Rain permits must be made on nationally standardized forms available from the U.S. Environmental Protection Agency (EPA).

With each application, the following data, specifications, plans and drawings must be submitted. ***Four copies*** of each application must be submitted 180 days prior to the commencement of construction. All application forms must be completed as indicated. Additional narrative descriptions must be provided as indicated. Information which has been previously submitted and is currently on file with the Department of Environmental Quality (Department) may be referenced. The reference to the previously submitted information shall include the date the material was submitted and the source (permit application number, etc.). Include any other information required by any applicable requirement or necessary to determine compliance with or implement any applicable requirement of the 1990 Federal Clean Air Act, the Montana Clean Air Act (75-2-2 MCA), or Montana's Air Quality Rules.

Air quality **operating permit** applications are administratively complete if all the information in the administrative completeness checklist is provided. Air quality **operating permit** applications are substantively complete if all the necessary information is provided. Applicants for air quality **operating permits** may request copies of the air quality operating permit administrative completeness checklist from the Department.

Air quality **preconstruction permit** applications are complete if all the required information is provided. Information beyond that requested in the air quality permit application may be required, if necessary to demonstrate compliance with applicable requirements.

On request, some requirements may be waived or modified by the Department. The information required in 40 CFR Part 70.5 must be submitted as part of all air quality **operating permit** applications and cannot be waived.

One copy of the **operating permit** application must be sent to the EPA at:

Office of Partnerships and Regulatory Assistance
Air and Radiation Program
US EPA Region VIII 8P-AR
999 18th Street, Suite 500
Denver, Colorado 80202-2466

A statement certifying that a copy has been mailed to EPA must accompany the **operating permit** application documents delivered to the state.

Applicants are encouraged to contact the Department before submittal of the permit application to determine specific application requirements for their source. Further information or clarification concerning applications can be obtained by calling or writing the Montana Department of Environmental Quality, at the address and telephone number listed.

Permit Application Fees

Pursuant to the Air Quality Permit Application, Operation and Open Burning Fees rules, a permit application fee must be submitted with an air quality **preconstruction permit** application and with any **operating permit** application that is not submitted concurrently with a preconstruction permit application (for example, an operating permit renewal application). The applicable fee is contained in ARM 17.8.504 (1) for air quality preconstruction permits and ARM 17.8.504 (2) for operating permits.

An air quality preconstruction permit application is incomplete until the proper application fee is paid to the Department. If the Department determines that the fee submitted with the air quality preconstruction permit application is insufficient, the applicant will be notified in writing of the appropriate fee. This fee must be submitted for the air quality preconstruction application to be processed.

An operating permit application is incomplete until the proper application fee is paid to the Department. If an operating permit application were to be submitted concurrently with a preconstruction permit application, one application fee would suffice (for that application). If the Department determines that the fee submitted with the operating permit application is insufficient, the applicant will be notified in writing of the appropriate fee. This fee must be submitted for the operating permit application to be processed.

The Department's permit application fee assessment may be appealed by the owner or operator of a source of air contaminants to the Board of Environmental Review (Board) within 20 days of the Department's determination of incompleteness of a permit application, based on the lack of the proper permit application fee. An appeal may be initiated by filing an affidavit with the Board setting forth the grounds for such an appeal and requesting a hearing before the Board. An appeal must be based on the allegation that the Department's fee assessment is erroneous or excessive. An appeal may not be based only on the fee schedule.

Air quality permit application fees are separate and distinct from any air quality operation fees.

Affidavit of Publication of Public Notice (Not required for operating permit applications)

A public notice, the form for which is included with the application, must be published in a newspaper of general circulation in the area where the source is to be located. The notice must be published no earlier than 10 days prior to the date your air quality preconstruction permit application will be submitted to the Department, and no later than 10 days following the date of submittal. The notice is to be published <u>once</u> in the legal notice section of a newspaper of general circulation in the area affected. Air quality preconstruction permit applications for solid waste incinerators, subject to 75-10-221 Montana Code Annotated (MCA), or hazardous waste incinerators or boilers or industrial furnaces, subject to 75-10-406 MCA, must publish <u>three</u> public notices, each on separate days, in the legal notice section of a newspaper <u>in the county in which the source is proposed to be located</u>. Any fees associated with publication of this notice are the responsibility of the permit applicant. Questions regarding an appropriate newspaper should be addressed to the Department. An Affidavit of Publication of public notice must be submitted to the Department with the application or the air quality preconstruction permit application will be deemed incomplete. The notice to be published consists of all text within the box in Section 8.0 of the application - Instructions on Public Notice For Air Quality Preconstruction Permit.

1.0 GENERAL FACILITY INFORMATION AND SITE DESCRIPTION

Supply the facility name (business license name of owner/operator as registered with the Montana Secretary of State), address, and location. List the names and telephone numbers of the owner, facility manager and permit contact. Describe the general nature of the business/businesses the applicant engages in at this facility. Supply the Standard Industrial Classification code(s) and description(s). Supply the total property area of the source. Indicate the total number of employees at the facility. List permit numbers and permit type (preconstruction permit, operating permit) of any existing air quality permits issued to this facility.

For preconstruction permit applications only:

Supply the estimated capital expenditure for the proposed project (this information is optional and not required, you may make an estimate, state a range, or decline to supply the information);
Supply the estimated cost of any air pollution control equipment proposed;
Estimate the number of permanent new employees as a result of the proposed project (preconstruction permit applications only);
Provide a construction/installation schedule, or project duration if the source is a temporary source (preconstruction permit applications only). This schedule must include estimated starting and completion dates.

1.1 Narrative Description of Site

Identify any nearby sensitive areas; i.e., schools, hospitals, residential areas, parks, etc.

1.2 Site Map

A drawing, sketch or topographic map of appropriate scale must be submitted (maximum scale 1" = 500', measurement to nearest 20'), showing at least the following:

a. The property on which the source is located, with outlines and heights of all existing and proposed buildings on it. Identify property boundaries clearly.

b. The location of the existing and proposed new emissions units and emission points on the property. Identify the emissions units and points as existing or proposed. Provide Universal Transverse Mercator (UTM) coordinates for each emissions unit. UTM coordinates are available on any USGS map.

c. The location of the property with respect to streets, state highways or interstate highways, and all adjacent properties. Identify buildings on adjacent properties. Indicate adjacent land uses and location of residences.

d. True north arrow. All drawings shall be to scale and shall have the scale graphically displayed.

e. Elevation [feet above mean sea level (MSL)] of each stack or fugitive emissions unit.

f. Any available aerial photograph(s) of the area, showing the current and/or proposed location of the emissions unit(s).

1.3 Narrative Project Summary (Not required for operating permit applications)

Provide a brief description of the proposed project (new construction, alteration, modification of the source, etc.).

1.4 Project and Site Informational Request (Not required for operating permit applications)

Complete the attached Project and Site Informational Request. Based on available information, indicate whether the proposed project will have an affect on the physical or human environment in any of the areas indicated.

2.0 EMISSIONS UNIT LISTING

Attach a list of all existing and proposed emissions units. For operating permit applications, indicate insignificant emissions units. For purposes of air quality preconstruction permits, all emissions units are considered significant. A separate Emissions Unit/Process Information Form (section 4.0) must be completed for each separate emissions unit. For air quality operating permits, a separate Emissions Unit/Process Information Form must be completed for each separate significant emissions unit for which information has not been previously submitted and is not currently on file with the Department. The reference to the previously submitted information shall include the date the material was submitted and the source (permit application number, etc.). Insignificant emissions units need only be listed, individually or by category.

3.0 EMISSIONS UNIT SPECIFIC AND PLANT-WIDE EMISSIONS SUMMARY

3.1 Emissions Unit Specific Emission Summary

3.1.1 Emissions Unit Identification

A separate Emissions Unit Specific Emission Summary form must be completed for each emissions unit listed in section 2.0. Applications for air quality operating permits need only address significant emissions units individually. Insignificant emissions units may be addressed individually or as a group.

3.1.2 Potential Emission Summary

Identify all regulated air pollutants and the potential to emit from all emissions units. All regulated air pollutants, including hazardous air pollutants, must be identified and, to the extent practical, emissions estimated. Potential hazardous air pollutants to be addressed include, as a minimum, all regulated substances listed in 40 CFR Part 68 Subpart C 68.130. (Use additional sheets if necessary). The potential to emit (PTE) is to be calculated on production at maximum capacity for 8760 hours per year on an uncontrolled basis. Only control practices or equipment which are proposed to be made federally enforceable may be used to limit the PTE of the equipment. Include emission rates calculated in units consistent with any applicable standards or test methods (e.g., annual, daily, hourly, gr/dscf, etc); attach all calculations and indicate units.

3.2 Project-Wide Emission Inventory Summaries (Not required for operating permit applications)

3.2.1 Estimated Increase in Actual Emissions from All New or Altered Sources Addressed by This Application.

Estimate the total actual emissions increase expected at the facility from the proposed project. The emissions should be based on the proposed operating schedule and the projected average process rate. This information is used to calculate permit application fees.

3.2.2 Total Increase in Potential Emissions from Those New or Altered Sources Addressed by This Application.

Calculate the increase in the PTE from the facility as a result of the proposed project. PTE is to be calculated based on production at the maximum capacity of the installed equipment for 8760 hours per year, unless a limitation of the operating hours is proposed. Include emissions increases because of increased production capacity in existing emissions units as a result of this project (debottlenecking). Only control practices or equipment which are proposed to be made federally enforceable may be used to limit the PTE of the project.

4.0 EMISSIONS UNIT/PROCESS INFORMATION

For air quality preconstruction permits, a separate Emissions Unit/Process Information Form must be completed for each separate point or fugitive emissions unit. This includes any existing point or fugitive sources for which this information has not been previously submitted.

For air quality operating permits, a separate Emissions Unit/Process Information Form must be completed for each significant separate point or fugitive emissions unit for which information has not been previously submitted or is not currently on file with the Department.

The reference to the previously submitted information shall include the date the material was submitted and the source (permit application number, etc.). Insignificant emissions units need only be listed, individually or by category.

4.1 Emissions Unit Identification

Identify the emissions unit by the name and/or number you want referenced in the permit; typically, the most common name used by facility personnel for the equipment.

4.2 Narrative Process Descriptions

Provide a narrative process description for all existing and proposed relevant processes. For operating permit applications, process descriptions are only required for significant air pollutant emissions units. Existing process descriptions that have been previously submitted or are currently on file with the Department do not have to be supplied and need only be referenced.

Emissions unit process descriptions should include sufficient information to clearly show the design and operation of all existing and proposed emissions units and any associated air pollution control equipment or procedures. Include a block diagram flowchart of the proposed processes and the relationship of the proposed processes to any existing processes. Supply all data regarding the processes relevant to the determination or regulation of emissions and all data necessary to determine compliance with an applicable requirement.

Descriptions should include design data, manufacturer's specifications or engineering drawings (sizes, dimensions, capacities, residence time, and configurations) of the emissions unit, any information about the production, collection, handling, or conveyance of raw materials, if such information is necessary to determine or regulate emissions or is necessary to determine compliance with an applicable requirement.

Specify and describe any limitations on source operation or any work practice standards which may affect emissions. Provide specifications of raw materials being processed and fuel used, material balance calculations, and anticipated operating temperatures, if such information is necessary to determine or regulate emissions or is necessary to determine compliance with an applicable requirement.

4.3 Proposed Operational Limitations

Describe any proposed operational limitations, such as restrictions on hours of operation or maximum production capacity, to be used to limit the potential to emit of the emissions unit.

4.4 Emissions Unit Description

Supply the source classification codes (SCC) and SCC descriptions. The appropriate SCC codes and descriptions are available from the Department. Indicate whether the emissions unit is an affected unit under Title IV (Acid Rain) of the Federal Clean Air Act. Supply process equipment identification, including, make, model, type, size, serial number, year of manufacture, and year of installation. Identify the emissions unit location, using Universal Transverse Mercator (UTM) coordinates to the nearest 0.01 km. UTM coordinates are available on any USGS map. Note the elevation of the emissions unit in feet above MSL).

Supply all relevant stack information, including height (in feet), diameter (in feet), exit gas temperature (in °F), exit gas flow rate (in actual cubic feet per minute and dry standard cubic feet per minute), exit gas velocity (in feet/second), moisture content, stack type, and stack lining.

Provide process information, including type of material processed, average process rate or process weight, maximum rated design capacity, and approximate quantities produced if the source is temporary. Indicate units.

Supply fuel/combustion information indicating fuel type, heat content (BTU rating), average fuel combustion rate, maximum rated design capacity, sulfur content (%), and ash content (%). For variable parameters, indicate the maximum value or a range.

Supply information on supplemental fuels on an attached sheet. Indicate draft type, draft control, and draft-control location. Estimate percent annual thruput on a quarterly basis and provide an anticipated operating schedule.

Applications for air quality operating permits need only address <u>significant</u> emissions units individually. Insignificant emissions units may be addressed as a group.

5.0 EMISSIONS UNIT AIR POLLUTION CONTROL INFORMATION

A separate Emissions Unit Air Pollution Control Information Form must be completed for each emissions unit. If no controls or work practices are employed then state “none”. Use additional sheets if necessary.

5.1 Emissions Unit Identification

5.2.1 Primary and Secondary Pollution Control Equipment or Procedure Description

Descriptions should include design data, manufacturer's specifications or engineering drawings (sizes, dimensions, capacities, residence time, and configurations) of the emissions unit and/or air pollution control equipment. Include any information which may affect the production, collection, conveyance or control of air contaminants.

For each regulated air pollutant emitted, specify primary and secondary control equipment information and estimated control efficiency. Specify and describe any limitations on source operation or any work practice standards which may affect emissions.

5.2.1 & 5.2.2 Primary and Secondary Air Pollution Control Equipment Identification

Supply sufficient information to identify any air pollution control equipment, including make, model, type, size, serial number, year of manufacture, estimated control efficiency, and the estimated cost of the air pollution control equipment. The estimated cost of any air pollution control equipment need only be supplied for air quality preconstruction permits.

5.3.1, 5.3.2, & 5.3.3 Continuous Emission Monitoring System Identification (if applicable):

Supply sufficient information to identify any continuous emission monitoring system, including type, make, model, serial number, and automatic calibration values for zero and span.

5.4 Emissions Control Analysis (Not required for air quality operating permit applications)

The applicant must provide the Department with a Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) Analysis, as applicable, for each regulated air pollutant.

BACT is required for all sources obtaining an air quality preconstruction permit. The BACT analysis must include a listing of all technologically feasible control options. Control costs (cost per ton of air pollutant controlled) should be calculated for each option. Options may then be eliminated for economic, energy or environmental reasons. The control option that is selected should have controls or control costs similar to other recently permitted similar sources and should be capable of achieving appropriate emission standards.

LAER is required for major stationary sources and major modifications located in a nonattainment area. LAER is also required for major stationary sources or major modifications located in an area designated as attainment or unclassified under 40 CFR 81.327, but would cause or contribute to a violation of a National Ambient Air Quality Standard (NAAQS) in a nearby nonattainment area. The LAER analysis shall demonstrate that the emission rate proposed is equivalent to the most stringent emission rate achievable or contained in any state implementation plan for a similar source.

5.5 Stack Height and Dispersion Technique Analysis

If applicable, supply a stack height and dispersion technique analysis demonstrating compliance with the requirements of the Stack Heights and Dispersion Techniques rule (ARM 17.8, Subchapter 4).

6.0 REGULATORY PROGRAMS

Applicable Air Pollution Control Programs

Indicate which air pollution control programs are applicable to this permitting action.

7.0 APPLICABLE REQUIREMENTS

7.1 Applicable Requirements

Provide a complete listing and description of all applicable air pollution control requirements, including rules and regulations which have been promulgated at the time of the submittal of the application, but which will become effective at a later date. Explain any proposed exemptions from otherwise applicable requirements. Describe or reference any applicable test methods for determining compliance with each applicable requirement.

7.2 Additional Requirements

Note which of the following requirements (7.2.1 through 7.2.7) apply to this permit application and indicate whether the required analyses have been submitted.

7.2.1 Ambient Air Quality Impact Analysis (not required for air quality operating permits)

(a) Existing Air Quality Status - a narrative description of the existing air quality status (non-attainment area, etc.) and copies of any existing air monitoring data reports or dispersion modeling. Information which has been previously submitted and is currently on file in the DEQ may be referenced. The reference to the previously submitted information shall include the date the material was submitted and the source (permit application number, etc.).

(b) Ambient Air Quality Monitoring Requirements - a listing and description of all applicable state or federal ambient air quality monitoring requirements and a detailed description of any proposed ambient air monitoring.

(c) Ambient Air Quality Dispersion Modeling - a description and results of all required ambient air quality dispersion modeling.

(d) Air Quality Related Values Analysis - an analysis of the impairment to visibility, soils, and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial, and other growth associated with the source or modification. (Only required for Prevention of Significant Deterioration (PSD) permit applications).

(e) Visibility Analysis - a demonstration that emissions from the source will not cause or contribute to an adverse impact on visibility within a federal Class 1 area and that the source is in compliance with the requirements of the Visibility Impact Assessment rules. (Only required for PSD permit applications).

(f) PSD Increment Analysis - a demonstration of compliance with PSD ambient air increments. (Only required for PSD permit applications).

7.2.2 Alternative Siting Analysis

An analysis of alternative sites, sizes, production processes and environmental control techniques for the proposed source which demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction or modification. This analysis is only required for major stationary sources and major modifications located in a nonattainment area, or for major stationary sources or major modifications located in an area designated as attainment or unclassified under 40 CFR 81.327, but would cause or contribute to a violation of a NAAQS in a nearby nonattainment area (i.e., for those sources required to obtain an air quality preconstruction permit and required to comply with the requirements of subchapters 9 and 10 of the air quality rules). (Not required for air quality operating permit applications).

7.2.3 Alternative Operating Scenarios (Only required for air quality operating permit applications).

Sufficient information, as necessary, to define any reasonably anticipated alternative operating scenarios included in the air quality operating permit. (This includes location, process, regulatory and emission data as required in Sections 2.0 though 6.0).

7.2.4 Compliance Schedule/Plan for All Sources or Emission Units (Only required for air quality operating permit applications for sources already operating).

(a) Compliance schedule/plan must include, at a minimum, the following: A description of the compliance status of the source with respect to all applicable requirements.

1. For applicable requirements that the source is currently in compliance with, a description of how compliance will be maintained, including a statement that the source will continue to comply with applicable requirements with which it is in compliance.

2. For applicable requirements that will become effective during the permit term, a statement that the source will (in a timely manner) comply with all applicable requirements that become effective during the permit term, including rules and regulations which have been promulgated at the time of the submittal of the application, but which will become effective at a later date, and a schedule for complying with the applicable requirements.

3. For applicable requirements that the source is not currently in compliance with, a narrative description of how the source will (in a timely manner) achieve compliance with all applicable requirements with which the source is not currently in compliance. The compliance schedule shall also include a schedule of measures, including an enforceable sequence of actions with milestones, leading to compliance with all requirements.

   The compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. The schedule for submission of certified progress reports shall be no less frequent than once every six months.

(b) Compliance schedule content requirements apply to Title IV (acid rain) sources, except as specifically superseded by 40 CFR Part 72 with regard to the schedule and the methods the source will use to achieve compliance with the acid rain emission limitations.

7.2.5 Compliance Certification

(a) Certification of compliance with all applicable requirements signed by a responsible official; except, in the case of an affected source under the acid rain program, the designated representative of the source shall make this certification. (Only required for air quality **operating** permit applications).

(b) A statement of methods used for determining compliance, including a description of the monitoring, record keeping, reporting requirements, and test methods. (Only required for air quality **operating** permit applications for sources already operating).

(c) A proposed schedule for submitting compliance certifications (no less than annually during the permit term). (Only required for air quality **operating** permit applications for sources already operating).

(d) Certification that **all** sources owned by the applicant are in compliance with all applicable rules and regulations. (Only required for PSD permit applications).

7.2.6 Additional Requirements for Solid or Hazardous Waste Incinerators or BIFs Subject to 75-10-406 MCA. (Only required for preconstruction permit applications for Solid or Hazardous Waste Incinerators or BIFs subject to 75-10-406 MCA).

(a) Health risk assessment showing that the projected emissions and ambient concentrations will constitute a negligible risk to the public health, safety and welfare and to the environment. That health risk assessment will include evaluation of cumulative risk both to human health and the environment through all known exposure pathways.

(b) BACT analysis for all air pollutants, including HAPS (see Section 5.5).

(c) Three public notices, the form for which is included with the application form, must be published in a newspaper of general circulation in the county where the source is to be located (Section 8.0 of the application).

(d) Ambient air quality impact analysis that describes the ambient impact of all air pollutants, including HAPS (see Section 7.2.1).

7.2.7 Additional Requirements for Commercial Medical and Commercial Hazardous Waste Incinerators, Including BIFs Subject to 75-10-406 MCA. (Required only for preconstruction permit applications for Commercial Medical and Commercial Hazardous Waste Incinerators, including BIFs, subject to 75-10-406 MCA).

(a) Complete description of all the types, amounts, and sources of chlorinated plastics and other materials included in the waste stream that may be a source of, or lead to the creation of, chlorinated dioxins, furans, heavy metals, or carcinogens.

(b) LAER analysis, unless BACT is adequate to prevent exceedance of the applicable federal standards.

(c) A listing and demonstration of compliance with the applicable federal standards.

(d) Compliance disclosure statement containing the following information:

1. The name, business address, and social security number of the applicant and each principal.

2. A description of any civil or administrative complaint filed within the five years prior to the submittal of the application against the applicant or any principal for violation of an environmental protection law in Montana and whether the complaint resulted in a civil or administrative penalty.

3. A description of all judgements of criminal conviction entered against the applicant, or any principal, for the violation of an environmental protection law in Montana the five years prior to the submittal of the application.

4. A description of all judgements of criminal conviction entered against the applicant, or any principal, for the violation of an environmental protection law in another state the five years prior to the submittal of the application that resulted from the operation of a BIF that, if located in Montana, would be subject to the requirements of 75-10-406, MCA.

8.0 PUBLIC NOTICE FOR AIR QUALITY PRECONSTRUCTION PERMITS

The public notice and the accompanying instructions are included in Section 8.0 of the application - Instructions on Public Notice For Air Quality Preconstruction Permit.

9.0 CERTIFICATION OF ACCURACY AND COMPLETENESS

Each permit application must be submitted with an **original signature** of the corporate officer, responsible official, authorized representative or designated representative, under Title IV 1990 FCAA, certifying that the information contained in the application is, to the best of their knowledge, true, accurate and complete.